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10/644,595	08/20/2003	Takahiro Maemura	NGBC:007	5560

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EXAMINER

HUNNINGS, TRAVIS R

ART UNIT PAPER NUMBER

2632

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,595

Applicant(s)

MAEMURA ET AL.

Examiner

Travis R Hunnings

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-14 is/are rejected.
- 7) ☒ Claim(s) 15-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,4 and 9-11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Koreishi (JP11-208420-A).

Regarding claim 1, Koreishi discloses *Parking Guidance System And Automatic Parking Apparatus* that discloses the following claimed limitations:

The claimed at least one camera for mounting on the vehicle to enable capturing of an image from a right side or left side of the vehicle is met by the cameras (1 and 2) that are mounted on the side and behind the vehicle as seen in figure 1 (paragraph 8);

The claimed image display unit for displaying the image captured by the camera is met by the display (3) that displays perimeter environmental image (paragraph 8);

The claimed image information control unit for controlling image information on the image display unit is met by the calculating unit (10) that comprises a microcomputer and its peripheral part (paragraph 8);

The claimed image information control unit provides superimpose indicators on the image for guiding the vehicle to a reference position at which the target parking position is viewable laterally of the vehicle is met by the pathway displayed on the display to guide the car into the parking spot as seen in figures 11 and 20 (paragraph 8);

The claimed wherein at the reference position at least one of the superimpose indicators is superimposed on an image of a vehicle parked adjacent to the target parking position captured by the camera is met by path being displayed on the display that is showing an image of a vehicle to the lateral side of the guided vehicle as seen in figures 11 and 20 (paragraph 8).

Regarding claim 4, Koreishi discloses all of the claimed limitations. The claimed superimpose indicators include a longitudinal direction guideline for positioning the vehicle in the longitudinal direction thereof and a lateral direction guideline for positioning the vehicle in the lateral direction thereof is met by the path having both vertical and horizontal guidelines for directing the parking operation as seen in figures 4, 5, 7, 11 and 20.

Regarding claim 9, Koreishi discloses all of the claimed limitations. The claimed at least one of the superimpose indicators is a mark to schematically indicate the vehicle position at the completion of parking is met by the indicators that show the position of the vehicle at the end of the parking procedure as seen in figure 20.

Regarding claims 10 and 11, the claims are interpreted and rejected as claim 1 stated above.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koreishi.

Regarding claim 12, Koreishi discloses all of the claimed limitations. The claimed at least one camera including a pair of front right and front left cameras for mounting on the front of the vehicle to enable capturing of an image from the front-right side and the front-left side of the vehicle would have been obvious to one of ordinary skill in the art. Providing a camera for both sides of the vehicle would allow the device to parallel park on either side of the road and would allow it to operate in countries that operate vehicles on different sides of the road.

Regarding claims 13 and 14, the claims are interpreted and rejected as claim 12 stated above.

5. Claims 2 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koreishi in view of Kakinami.

Regarding claim 2, Koreishi discloses all of the claimed limitations except for the claimed parking assistance apparatus comprising an instruction unit that gives a start instruction of the parking assistance wherein the image information control unit superimposes the superimpose indicators on the image on the image display unit when the unit gives a start instruction of the parking assistance. Kakinami discloses *Assistant Apparatus and Method for a Vehicle in Reverse Motion* that teaches displaying parking assistance indicators after selecting a particular parking mode (col. 10, lines 5-43) and giving instructions to assist the parking both visually and audibly. The selective starting and displaying/playing of the assistance would eliminate unneeded assistance indicators being displayed when the user does not want to park and instruct the user how to begin the parking operation. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Koreishi according to the teachings of Kakinami to include a start instruction that selectively initiates the display of the parking assistance indicators. It is inherent that there exists an instruction unit to handle these operations.

Regarding claim 5, Koreishi discloses all of the claimed limitations except for the claimed instruction unit superimposing a lateral direction guideline on the display after a start instruction is given for both back-in parking and parallel parking. Kakinami teaches

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displaying a target path on the display screen after choosing a particular parking mode, either back-in or parallel (col. 10, lines 5-43 and col. 11, lines 4-62, figs. 12a-d, 13a-c, 16a-d, 17a-c and 18a-c) while the unit provides audible instruction to the driver to initiate the parking maneuver. The display of the target path helps the driver to successfully negotiate the vehicle into the desired parking space, while the selective method allows the driver to choose which type of parking operation they want to perform. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Koreishi according to the teachings of Kakinami to include lateral direction guidelines that are displayed when either the back-in or parallel parking modes are selected.

Regarding claims 6 and 7, Koreishi discloses all of the claimed limitations except for the claimed instruction unit giving a start instruction of parallel and back-in parking and displaying the two guidelines on the image. Kakinami teaches displaying parking guidelines and instructing the driver audibly to accomplish parking operations after selecting a particular parking operation (col. 10, lines 5-43). Having the vehicle outline displayed on the screen would help the driver to gain an intuitive ascertainment of distance and help them to park easier. The outline of the vehicle displayed on the display by Koreishi corresponds to the actual size of the vehicle so that parking would be accomplished correctly. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Koreishi

according to the teachings of Kakinami to have the instruction unit give a start instruction of parallel parking and displaying the two guidelines on the image.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koreishi in view of Kakinami and further in view of Shimazaki.

Regarding claim 3, Koreishi and Kakinami disclose all the claimed limitations except for the claimed start instruction for parallel parking that selects from either a left direction or right direction. Shimazaki discloses *Parking Assistance Device* that teaches giving parking assistance instructions for either right side or left side parallel parking depending on which side the user selects (col2 29-32). The ability to get parking assistance for parallel parking for either side of the vehicle would be beneficial to the user because one would want the ability to park on either side of the road, hence it adds to the robustness of the invention. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Koreishi and Kakinami according to the teachings of Shimazaki to include parking assistance from either side of the vehicle.

Allowable Subject Matter

7. Claim 8 is allowed.

8. Claims 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: with regards to independent claim 8, the prior art does not disclose nor teach a vehicle parking assistance apparatus that includes an information control unit that displays a mark indicating a center position of the vehicle at the completion of parking on the lateral direction guideline.

Response to Arguments

10. Applicant's arguments filed 3 February 2005 have been fully considered but they are not persuasive. The applicant makes the following arguments:

A: Applicant argues that the prior art does not disclose nor teach superposing indicators on the image of a vehicle parked adjacent to the target parking position captured by the camera.

Responses:

Regarding argument A, Koreishi discloses a parking assistance apparatus that displays an image of a parking space to the lateral side of the vehicle that contains a parked vehicle adjacent to the desired parking space as seen in figures 11 and 20.

Koreishi also discloses superposing indicators on the image displayed in order to help the driver complete the parking maneuver.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

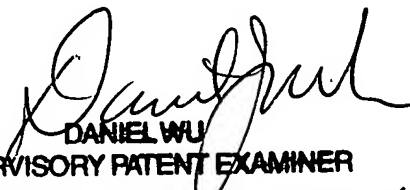
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


DANIEL WU
SUPERVISORY PATENT EXAMINER
6/02/05